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TRANSMITTAL FORM

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Total Number of Pages in This Submission

| | |
|------------------------|-----------------|
| Application Number | 10/021,656 |
| Filing Date | 12-12-2001 |
| First Named Inventor | Gary C. Johnson |
| Art Unit | 3681 |
| Examiner Name | Dirk Wright |
| Attorney Docket Number | |

ENCLOSURES (Check all that apply)

| | | |
|-----------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input type="checkbox"/> Fee Transmittal Form | <input checked="" type="checkbox"/> Drawing(s) | <input type="checkbox"/> After Allowance Communication to TC |
| <input type="checkbox"/> Fee Attached | <input type="checkbox"/> Licensing-related Papers | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences |
| <input type="checkbox"/> Amendment/Reply | <input type="checkbox"/> Petition | <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Proprietary Information |
| <input type="checkbox"/> Affidavits/declaration(s) | <input type="checkbox"/> Power of Attorney, Revocation | <input type="checkbox"/> Status Letter |
| <input type="checkbox"/> Extension of Time Request | <input type="checkbox"/> Change of Correspondence Address | <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): |
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Remarks

sent; copies of Replacement Drawing #2. Also sent; Certificate of Mailing-PTO/SB92

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|--------------|-----------------|----------|--|
| Firm Name | | | |
| Signature | | | |
| Printed name | Gary C. Johnson | | |
| Date | 11-15-06 | Reg. No. | |

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

| | | | |
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| Signature | | | |
| Typed or printed name | Gary C. Johnson | Date | 11-15-06 |

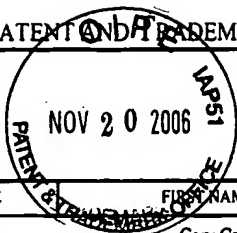
This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/021,656 | 12/12/2001 | Gary Carlton Johnson | | 4604 |

7590
Gary C Johnson
2064 Lafayette
Detroit, MI 48207

11/06/2006

EXAMINER

WRIGHT, DIRK

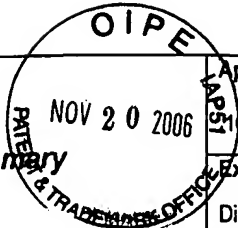
| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3681

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary



Application No.

210/021,656

Applicant(s)

JOHNSON, GARY CARLTON

Examiner

Dirk Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

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all road conditions and yet allows axle section rotation variability when needed, said differential comprising:

at least one first bevel gear planetary gear including;

a drivable case (8) having a means of rotatable support in a housing, bevel pinion gears (13,14) rotatively mounted in said case (8) on pinion gear shafts (3,4) side bevel gears (11,12) mounted for rotation in said case (8) and meshing with said pinion gears (13,14), a first axle shaft (5) stationary to one a side bevel gear (12), and a second axle shaft (10) stationary to the other ~~it's opposing~~ side bevel gear whether; directly or indirectly, said differential further comprising; at least one second planetary gear including: said drivable ~~a rotatable~~ case (8) in a housing, two sun gears (6,7), at least one planet gear (15,16) a planetary gear carrier (9), a hollow intermediate shaft (19), a said first axle shaft (5), and a said second axle shaft (10); wherein:

(a) said planetary gear carrier (9) being; independently rotational of any other housing of the said differential; and supporting the said at least one planet gear (15,16) and the said planetary gear carrier (9) being; axially stationary to said other a side gear (11), axially and rotationally supported in differential housing (8), and axially stationary to said second axle (10),

(b) a hollow intermediate shaft (19) stationary to said case (8) by; a support member (1), and support stock (2), said intermediate shaft (19) being; coaxial with the said first axle shaft and said pinion gear shafts (3,4), said intermediate shaft being; disposed coaxial with the said first axle shaft (5), and

(c) said a first sun gear (7) being; open throughout it's central axial stock and axially stationary to the end of said intermediate shaft (19), and

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(d) said a second sun gear (6) axially stationary to ~~a~~ the protruding end of said first axle shaft (5), and

(e) at least one gear shaft (17,18) mounted the said planetary gear carrier, being; off of center, stationary, and parallel to the axis of said planetary gear carrier, and

(f) said at least one planet gear (15,16) having; rotational and radial support in said planetary gear carrier (9) by way of; said at least one gear shaft (17,18) and said at least one planet gear (15,16) meshing with said first and second sun gears (6, ~~and~~ 7).

Claim 18 (amended), ~~as claimed in claim 17, a~~ The combination planetary gear differential according to claim 17 having; said at least one second planetary gear comprising: said a case (8) drivable for rotation in a housing, said two sun gears (6,7), said at least one planet gear (15,16), said a planetary gear carrier (9), said a hollow intermediate shaft (19), ~~and~~ said support stock (2) ~~/ and said support member(s) (1,2)~~ (1); for said intermediate shaft (19); wherein:

(a) said a case (8) rotatable in a stationary housing having axial openings,

(b) said planetary gear carrier (9) axially rotatable and in said case (8), and

(c) said a hollow intermediate shaft (19) axially ~~fixed~~ stationary ~~in~~ to said case (8) by said support member (1) ~~/ and said support~~ stock (2) (~~1,2~~), said intermediate shaft entered into said planetary gear carrier (9), and

(d) said a first sun gear 7 axially ~~fixed~~ stationary to the end of said intermediate shaft (19), and

(e) said a first ~~axial~~ axle shaft (5) rotatably and coaxially entered through said intermediate shaft (19) and said first axle shaft (5) protruding past said intermediate shaft (19), and (9) a second sun gear ~~fixed~~ stationary to the ~~inner~~ protruding end of said axle shaft (5), and

(g) said at least one gear shaft (17,18) mounted in the said planetary gear carrier (9); off of center and parallel to the central axis of the said rotatable case (8), and

(h) said at least one planet gear (15,16) rotatable on said at least one off of center gear shaft (17,18), said at least one planet gear (15,16) meshing with said first and second sun gears (6, and 7).

Conclusion

This application is in condition for allowance except for the formal matters as detailed in the above action.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

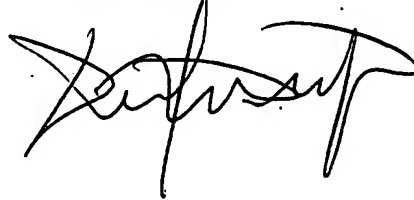
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dirk Wright whose telephone number is 571-272-7098. The examiner can normally be reached on Monday through Friday, 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dirk Wright
Primary Examiner
Art Unit 3681

A handwritten signature in black ink, appearing to read 'Dirk Wright', is written over the printed name and title.

DW
Wednesday, November 01, 2006



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PTO/SB92 (08-00)

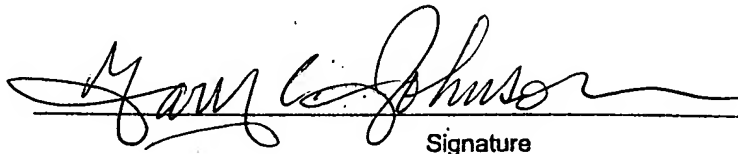
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Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

on 11-15-06
Date


Signature

Gary C. Johnson
Typed or printed name of person of signing Certificate

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

2 copies each, of; Replacement Drawing, marked-up copy of claims 17-18, clean version of claims 17-18, Transmittal form and Remarks & Requests and OA of; 11/6/06